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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,298	11/14/2003	Charles Otis	200309850-1	1131

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FORT COLLINS, CO 80527-2400

EXAMINER

HEINRICH, SAMUEL M

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

1.0

<b>Office Action Summary</b>	<b>Application No.</b> 10/713,298	<b>Applicant(s)</b> OTIS ET AL.	
	<b>Examiner</b> Samuel M. Heinrich	<b>Art Unit</b> 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-39 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/03/04/05</u> <u>5 sheets</u> | 6) <input type="checkbox"/> Other: ____.  |

*Handwritten signature/initials*

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 17-21, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by DE4138468. DE4138468 discloses a laser apparatus comprising a nozzle array which impinges liquid on the work. The position of the nozzles is such that fluid can impinge on separated elongated features of a work piece. The intended use of the apparatus for particular work pieces does not impart patentability to the claims.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over DE4138468 as applied to claim 5 above, and further in view of WO03028943A1. The angle of the nozzles is a feature which can be configured according to intended use. WO03028943A1 shows an angle of about 50 degrees. DE4138468 shows an angle of about 80 degrees. The use of varying angles would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the different work pieces are better treated with different impingement angles.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE4138468. Change in size of an apparatus does not impart patentability to the claims and the change in size would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because laser treatment is well known to be applied to both large and very small articles.

Claims 9-16 and 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE4138468 in view of WO03028943A1 and further in view of USPN 5,676,256 to Kumar et al and USPN 5,539,211 to Ohtoshi et al. DE4138468 in view of WO03028943A1 is described above. Both Kumar et al and Ohtoshi et al describe using selectively controlled fluid nozzles for impinging on work pieces. The use of the selective control of fluid nozzles in DE4138468 in view of WO03028943A1 would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the selective liquid supply provides better control of work

supplies and because the selective application of fluid to work areas is very old and well known as disclosed by both Kumar et al and Ohtoshi et al.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over KE4138468 as applied to claim 21 above, and further in view of USPN 5,676,256 to Kumar et al and USPN 5,539,211 to Ohtoshi et al. Both Kumar et al and Ohtoshi et al describe using selectively controlled fluid nozzles for impinging on work pieces. The use of the selective control of fluid nozzles in DE4138468 would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the selective liquid supply provides better control of work supplies and because the selective application of fluid to work areas is very old and well known as disclosed by both Kumar et al and Ohtoshi et al.

Claims 24-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE4138468 in view of WO03028943A1 and in view of US Publication US20030117449A1 to Cahill et al. DE4138468 discloses plural nozzle liquid supply during laser ablation. WO03028943A1 discloses laser ablation of a wide variety of materials with a laser system comprising a liquid nozzle. The use of a plurality of nozzles in a system as disclosed by WO03028943A1 would have been obvious at the time applicant's invention was made to a person having ordinary skill in the art because the plural nozzles provide better control of the ablation operation. Cahill et al disclose (Figures 6E-6L) well known work piece shapes comprising different features at different depths. The use of plural nozzles for ablation of the work piece of Cahill et al would have been obvious at the time applicant's invention was made to a person having

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ordinary skill in the art because the work piece has features which would benefit from selective fluid supply during their formation.

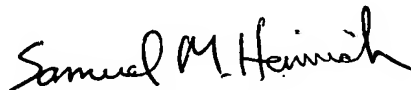
**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited art pertains to ablation and fluid supply.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel M. Heinrich whose telephone number is 571-272-1175. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Samuel M Heinrich  
Primary Examiner  
Art Unit 1725

SMH